



ATTORNEY DOCKET NO. ADV08 675

#12 (Ref to Recs.)
(CNE)
U.S. Patent
8/4/03

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of Brumleve, et al.

Serial No.: 09/832,875

Art Unit: 2879

Filed: April 12, 2001

Examiner: Ramsey, Kenneth J.

Title: SOLID MERCURY RELEASING MATERIAL AND METHOD OF DOSING
MERCURY INTO DISCHARGE LAMPS

RESPONSE AFTER FINAL

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Commissioner For Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Responsive to the final Office Action dated May 7, 2003, Applicant submits the following remarks.

Claims 1-26, 33, and 44-51 stand rejected as obvious over van der Wolf, et al., U.S. Patent No. 3,957,328 ("van der Wolf") in view of Anderson, U.S. Patent No. 4,449,948 ("Anderson"). Claims 27-32 stand rejected as obvious over the combination of van der Wolf and Anderson further in view of Hansler. Reconsideration and withdrawal of the rejection is solicited.

The examiner agrees that the primary reference relied upon in rejecting the claims expressly teaches away from the claimed invention, yet maintains the rejection on the premise that this fact is "clearly muted" by the "strong motivation" to combine the references because each reference is directed to dosing lamps with mercury.

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The examiner appears to have mischaracterized the fair disclosure of the references in forming the rejection.

Applicant agrees that van der Wolf discloses a method for dosing lamps with mercury and that it is desirable to obtain an accurate dose of mercury. However, van der Wolf proclaims that an accurate dose of mercury may be obtained by spreading an indium amalgam paste in the exhaust tube of a lamp and heating the indium amalgam to release mercury into the lamp. The only embodiment disclosed by van der Wolf includes an amalgam containing 75 percent by weight mercury which is necessarily in a "more or less liquid form" (col. 3, lines 17-29). There is no disclosure of any other embodiment, particularly the use of a solid amalgam pellet. In fact, the examiner has agreed that van der Wolf expressly teaches away from the use of an amalgam pellet.

Anderson discloses a method of dosing a lamp with a vaporizable fill of sodium and mercury in the form of a sodium amalgam pellet where the entire pellet is introduced into the lamp. The purpose of the methods disclosed in Anderson is to dose the entire pellet into the lamp, consistent with the objective of providing a vaporizable fill of both sodium and mercury. Both the sodium and the mercury must be dosed into the lamp and vaporized for proper lamp operation.

The examiner's assertion that it would have been obvious to one of ordinary skill in the art "that the [sic] essentially all of the amalgam of van der Wolf can be driven into the lamp by heating the exhaust tube to a set temperature" is premised on the unsupported assertion that "it is apparent that a controlled amount of amalgam can be driven from the pellets of Anderson by heating to a set temperature." The examiner's assertions are

erroneous, unsupported, and not understood by Applicant. Applicant's invention is directed to heating amalgam pellets to release only mercury from the pellets, not to the release of amalgam. There is no disclosure or suggestion whatsoever in van der Wolf of heating an amalgam to drive the amalgam into the lamp. Moreover, there is no disclosure or suggestion whatsoever in Anderson of driving mercury from an amalgam pellet. To the contrary, Anderson is directed to dosing a vaporizable fill of sodium and mercury into the lamp (col. 1, lines 19-22).

The examiner then concludes that the teaching of Anderson is "clearly applicable" to van der Wolf. However, the premise for the examiner's conclusion is the characterization that Anderson teaches the release of amalgam from amalgam pellets which not relevant to the claimed invention directed to the release of only mercury. Further, any assertion that Anderson discloses or suggests heating amalgam pellets to release only mercury is erroneous. Clearly, Anderson discloses only methods of dosing vaporizable sodium amalgam pellets into sodium mercury lamps and fails to disclose or suggest the heating of pellets to release only mercury into a lamp. The examiner has relied upon this erroneous characterization of Anderson in making the rejection.

The examiner has further ignored the fact that the references relied upon by the examiner issued in 1976 and 1984 respectfully, and that over fifteen years had elapsed before Applicant filed the present application to patent its admittedly novel invention. Such a fact cannot be ignored, and is directly contrary to the examiner's conclusion that "strong motivation" exists to combine the references which "clearly mutes" the express teaching away of the invention by the primary reference.

Applicant does not understand the examiner's assertion that basing patentability on "the mere fact that applicant has disclosed a novel way of obtaining a prior result is contrary to the provisions of 35 U.S.C. 103". The examiner's position that any novel method is rendered obvious by a prior method that achieves the same result is directly contrary to the express provisions of the patent statute which expressly states that new and useful improvements of known processes are patentable, i.e., a new or improved method of achieving the same result. (35 U.S.C. § 101).

The "mere fact" that each reference is directed to dosing lamps with mercury does not provide motivation to combine the teachings of the references. The examiner has failed to establish a *prima facie* case that the claimed invention is obvious. The examiner's assertion that "strong motivation" exists to combine the references in the face of the express teaching away of the claimed invention by the primary reference is premised on erroneous characterizations of the fair teachings of the references and ignores the fact that over fifteen years had elapsed since the issuance of the references and Applicant's filing to patent its novel invention.

In view of the improper combination of van der Wolf and Anderson, reconsideration and withdrawal of the rejection of all claims is solicited.

With respect to the dependent Claims 2-12, 17-20, 23, 50, and 51, the examiner asserts that applicant admits the specific limitations contained therein are prior art because applicant has not challenged the examiner's "statement" in the prior office action. The examiner has not provided, and cannot provide, any authority for this

proposition of the law. Moreover, the statement is directly contrary to Applicant's presentation of each of the claims as a separately patentable invention.

In fact, each of the dependent claims contains a separately patentable limitation and Applicant has made no admission that any of the limitations contained therein is prior art. The examiner asserts that it would have been obvious to select an optimum type and amount of amalgam as determined "by the specific application of the lamp" is conclusory, unsupported by the prior art, and not understood by Applicant.

For example, the specific amalgamative metals in the claimed particles, mercury content, and size of the claimed particles is not determined "by the specific application of the lamp" as asserted by the examiner. The claims are directed to methods of dosing mercury into lamps wherein an amalgam pellet is heated to release only mercury into the lamp. The limitations as to the content, size, etc. of the amalgam pellet is not determined by simply identifying the "specific application of the lamp" to be dosed. These specific limitations are dependent on several factors including, *inter alia*, the selection of metals that form solid amalgams at room temperature with the desired mercury content, metals that have low volatility, amalgams that release precise doses of mercury at desirable temperatures and rates, size of the lamps, desired mercury content of the lamps, and improvements to the processes for making the lamps. The prior art relied upon by the examiner neither discloses nor suggests the claimed limitations. Notwithstanding the patentability of the independent claims, each of the dependent claims includes separately patentable limitations. Reconsideration and withdrawal of the rejection of the claims is solicited.

The remaining dependent claims, each contains a separate patentable limitation and is separately patentable from its respective independent claim.

A further and favorable action and allowance of all claims is hereby solicited.

Respectfully submitted,



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